

on the move

Preparing. Finding. Implementing solutions.

North Carolina A&T State University
School of Agriculture and
Environmental Sciences
Newsletter
www.ag.ncat.edu

June 2010 • Vol. IX, No. 3

National 4-H spotlight to shine on A&T



Dr. Stephanie Luster-Teasley, an assistant professor in the College of Engineering at A&T and a member of the team that designed the 2010 National 4-H Science Experiment, and her son William.

What experts at N.C. A&T State University spent several weeks developing in the confines of their laboratories has been selected for a National Science Experiment with the potential to reach thousands — and possibly millions — of elementary age students across the United States.

National 4-H Council has chosen A&T as the lead university for this year's National Science Experiment. Among its other interactions, the experiment will be the focal point of activities during 4-H National Youth Science Day on Oct. 6. Yet, with a network of 6 million children participating in its programs — more than 5 million of them in 4-H science, engineering and technology programs last year — 4-H has the potential to reach millions more students. The experiment is posted on the 4-H website making it available to teachers, youth leaders, other students and the general population.

Developed by A&T faculty in Cooperative Extension, engineering and biology, the national experi-

ment focuses on water quality and climate change. The experiment, called 4-H₂O, demonstrates how carbon dioxide can affect living organisms.

Generating an interest in science is a primary goal of the 4-H National Youth Science Day Experiment and of the 4-H science, engineering and technology initiative, which seeks to engage 1 million additional young people in those fields by 2013. Currently, only a scant 5 percent of U.S. college graduates earn degrees in science, engineering, or technology. Those numbers are in marked contrast to graduates in Japan and China, where a whopping 66 percent and 59 percent, respectively, are pursuing science, engineering and technology degrees.

As the nation's leading youth organization, 4-H is responding to the dearth of science majors by boosting interest in science-based careers with programs such as the 4-H National Youth Science Day Experiment. One of the leading responders is Dr. Claudette Smith,

the A&T Cooperative Extension program leader who oversees youth programming. Smith has pursued and won grants to provide robotics programs to 4-H participants in limited-resource communities, and also tirelessly pursued the National Science Experiment.

Drs. Stephanie Luster-Teasley and Greg Goins, of A&T's School of Engineering and Department of Biology, respectively, enthusiastically responded to Smith's request for collaboration and developed the actual experiments; with Smith's oversight to ensure the science was applicable to an elementary-age audience. For her role in creating the scientific faculty triumvirate, Smith was recently honored as one of the co-recipients of the Dean of the School of Agriculture and Environmental Science's Collaboration Award.

As designed by A&T faculty, the national experiment allows children to measure their own carbon footprints by using worksheets and online guides that accompany the experiment materials.

"In addition to helping young people relate to their communities and to the world, conducting this national experiment has the potential to help create the next generation of new scientists to keep our country globally competitive," said Dr. M. Ray McKinnie, Cooperative Extension administrator. "This experiment may inspire young people to continue their interest in science throughout their secondary education, into college and on into career opportunities."

Dr. T's Minute

In his 1940 novel, *You Can't Go Home Again*, Thomas Wolfe tells the story of beginning writer George Webber who writes truths about his hometown Libya Hill and finds the reaction less than supportive. Then there is the biblical story of the prodigal son. After getting his inheritance, he leaves home, squanders all he has and returns to find his father waiting with open arms and planning his celebratory reunion.

I'd like to believe that my return as dean of the School of Agriculture and Environmental Sciences is somewhere between those two stories. Most of you know that I've spent the past two years as the interim provost and vice chancellor for academic affairs for the University. What an awesome job. As the permanent provost comes on board, I'm coming back home to the SAES.

Like Wolfe's George Webber, I've seen the truths and what I've found is that while we have a growing enrollment in the SAES and while we are tops in the University in terms of external grants, there is still work to be done. The SAES is poised as the frontrunner to help the University as it positions itself to take on an expanded role in helping this community and this state as they tackle economic challenges. This will be hard, but it's the kind of work required of a land-grant university.

But like the prodigal son, I'm coming back home with experience and awareness that can only help move the SAES forward. And I'm returning to a place that has flourished in my absence, under the adept leadership of Interim Dean Donald McDowell.

I'm back and more than ever the SAES remains on the move.

— Dr. Alton Thompson
Dean, SAES



Alston thrice named teacher-of-the-year

If a **top expert** on educational theory can't win prizes for teaching, then we all should be concerned. Fortunately, the SAES doesn't need to worry on that account. Dr. Antoine Alston, coordinator of the Agricultural Education Program and the son of two school teachers, received the Annual Award for Excellence in Teaching from the North Carolina University Board of Governors at A&T's May 8 graduation ceremonies.

Alston, a native of Nash County, earned his bachelor's and master's from N.C. A&T in 1996 and 1998, respectively, and his Ph.D from Iowa State in 2000, at age 24, and joined the faculty of his alma mater that same year.

Alston has been recognized as an innovator by "Black Issues in Higher Education," in an article describing the undergraduate program that he developed, "2 + 2: Online Studies in Agricultural

SAES Toxicologist named A&T's top researcher for 2009-10

Dr. Ipek Goktepe, associate professor of food sciences in the Department of Family and Consumer Sciences was named Outstanding Senior Researcher by the University.

Goktepe, a toxicologist, is the author or co-author of more than 75 publications and presentations, including one article describing research on the healthful antioxidant compounds in peanut skins. The article was recently listed by ScienceDirect as one of the "top 25 hottest articles in the world" based on the number of downloads. Since coming to A&T in 2000, Goktepe has secured more than \$3 million in research funding. Her main focus is food safety and finding the many anti-cancer properties in plant compounds. Her current projects involve researching special packaging to prevent E.coli and other foodborne pathogens in



Dr. Goktepe

fresh cut produce, and another on preventing strawberry mold after harvest.

But the accomplishment she feels best about since coming to A&T is having sparked an interest among other researchers into anti-cancer properties of herbs and plants. Since she began experimenting on the topic several years ago, other researchers have developed similar projects, and Goktepe is hoping that fruitful collaborations will develop.

In test tube experiments, the most potent anti-cancer effects she has discovered to date have been from extracts of pokeweed root and rosehips.

"There are many natural compounds in plants that are anti-carcinogenic, and readily available. Many of them you can just include in your diet," she said.

Dr. Alston receives award from Dr. Goktepe

Education." He subsequently developed a fully online graduate program in agricultural education. Alston works hard at helping students succeed professionally and academically, even after graduation. He frequently mentors and collaborates with graduate and former students on research projects which lead to publication in peer reviewed journals. At his urging, the majority of the undergrads that he advises go on to receive their master's and even Ph.Ds. Alston advocates for a learning environment that prepares students to be "21st century ready, globally minded and prepared to assume leadership roles."

The same slate of accomplishments that pushed Alston to the forefront for the Annual Award for Excellence in Teaching from the North Carolina University Board of Governors at A&T also got the nod from selection committees picking out a Teacher of the Year for the School of Agriculture and Environmental Sciences, and the A&T chapter of Gamma Sigma Delta's Award for Excellence in Teaching. Plaques for both those awards will be joining the Alston trophy case along with the medallion presented on behalf of the Board of Governors.

on the *move*

Preparing. Finding. Implementing solutions.

Mushroom men get share of SAES Collaboration Award

The **synergy** generated by an SAES economist whose specialty is rural economic development and a research scientist whose



Dr. Isikhuemhen



Dr. Yeboah

specialties are edible and medicinal mushrooms has garnered the pair a share of the Dean of the School of Agriculture and Environmental Science's Collaboration Award for the 2009-10 academic year. Dr. Omon Isikhuemhen, a mycologist who inaugurated the SAES's initial research forays into edible and medicinal mushroom production when he arrived in Greensboro eight years ago, went on to team up with Dr. Osei-Agyeman Yeboah, an economist who is interim director of the SAES's Leonard C. Cooper Jr. International Trade Center, and the duo

was honored for their collaborative success story along with Dr. Claudette Smith of The Cooperative Extension Program at A&T at the SAES Awards Banquet for the 2009-10 academic year.

The collaboration that brought recognition to Isikhuemhen and Yeboah is the Edible and Medicinal Mushroom Project, which has now been the source of training in production and marketing of shiitake, maitake and other varieties of mushrooms for more than 600 North Carolinians looking for a profitable new enterprises for a small farm. The project also has assisted farmers and community organizations in qualifying for grant funding, and the founding of the North Carolina Mushroom Growers Association in 2005 was a direct result of the project.

A new curriculum for training Extension agents and farmers in shiitake production has been developed in collaboration with Dr. Claudette Smith of The Cooperative Extension Program at A&T under project auspices, and a new mushroom research facility at the University farm was made possible primarily by project funding.



Dr. Keith Baldwin was honored with the A&T chapter of Gamma Sigma Delta's award for excellence in Extension for the 2009-10 academic year. Baldwin is the Cooperative Extension Program at A&T's horticulture specialist and the program leader for Extension's statewide subject matter support for agriculture, natural resources management, and community and rural development.

Baldwin began his Extension career as the program coordinator for a school and community garden outreach in the San Diego area from 1977 to 1981. Three decades later,

Willis wins Gamma Sigma Delta research recognition

Ask Dr. Willie Willis to run down the benchmarks and milestones in his research work that led to the Gamma Sigma Delta award for Excellence in Research for the 2009-10 academic year, and the keywords in his responses aren't the conventional litany of technical terms from his specialty areas of poultry pathogens and food microbiology. A keyword search of a transcript from Willis's description of his most recent poultry production research accomplishments would turn up extensive returns to the expressions "teamwork," "original niche" and "good use of resources."

Willis has had six articles published in refereed journals in the past five years, and most of these articles share findings from a \$305,000 Evans-Allen project, for which he is the principal investigator, that is looking into the potential for feed supplements, derived from mushrooms, to combat some of the same health problems in poultry that are currently forcing producers to turn to antibiotics.

Dr. Keith Baldwin receives the 2009-10 Gamma Sigma Delta Award for Excellence in Extension from Dr. Donald McDowell, SAES associate dean for academic programs.

A&T Chapter of Honor Society for Agriculture singles out Baldwin for excellence

the largest grant on a formidable list of 28 Extension and research projects with external funding for which he is either principal investigator or co-principal investigator is topped by a \$658,132 grant from CYFAR (Children, Youth, and Families at Risk) in 2009 for a project that will provide education and assistance to community gardens across North Carolina through three demonstration hubs in the state's three geographic regions.

On three occasions Baldwin has been a member of a team that was awarded the Dean of the SAES's Collaboration Award for an academic year. For the 2008-09 academic year, Baldwin was part of a trio (along with the Dept. of Animal Sciences chair, Dr. Ralph Noble, and University Farm Manager Leon Moses), which was presented the Collaboration Award for representing A&T's interests in formulation of a new strategic plan for North Carolina's 18 agricultural research stations and farms. The

Collaboration Award for 2004-05 went to Baldwin, 10 other members of the SAES faculty and staff, and two nonprofits for work that landed the SAES several grants from the Golden LEAF Foundation for research into new crops, field days and demonstration sites. A year earlier, when honors and recognitions for the 2003-04 academic year were announced, a 12-member University Farm Improvement Team that included Baldwin shared the Collaboration Award along with Ag. Communications and Technology.

Despite the administrative and subject matter responsibilities for Cooperative Extension, Baldwin nonetheless manages to keep a foot in research, managing several research plots that also serve as Extension demonstrations at the University farm. He has been the author or a coauthor of more than 30 articles in scientific journals on organic production methods, cover crops and other topics involving horticulture and soil sciences.

as an alternative approach to large-scale production.

When Willis joined the SAES faculty in 1984, he became the first full-fledged poultry scientist at A&T. Twenty years later, in 2004, he was still A&T's one-

and-only poultry scientist, and the design of the new Poultry Research Complex that was added to the University Farm at that time reflects his considerable influence.

After pausing to admit that mention of the new poultry unit "Makes me smile," Willis nonetheless returns to some of the same keywords that pop up consistently in discussions of his research work. "Our students are making good use of the resource in addition to its value to research," he says. "It's providing them with experience that's led to internships and employment. They like the teamwork."



Dr. Willis

on the *move*

North Carolina A&T State University School of
Agriculture and Environmental Sciences Newsletter
*Produced by the Agricultural Communications and
Technology Unit*

Dr. Harold L. Martin Sr., *Chancellor*
Dr. Alton Thompson, *Dean, School of
Agriculture and Environmental Sciences*
Willie T. Ellis Jr., *Associate Dean, Administration*
Dr. Shirley Hymon-Parker, *Associate Dean,
Agricultural Research*
Dr. Donald McDowell, *Associate Dean,
Academic Programs*
Dr. M. Ray McKinnie, *Associate Dean,
Administrator, The Cooperative Extension Program*

North Carolina A&T State University is a land-grant
high research activity institution and AA/EEO employer.

Send change of address and correspondence to:
***on the move* Newsletter Editor**
Agricultural Research Program
CH Moore Agricultural Research Station
Greensboro, NC 27411

or online:
[www.ag.ncat.edu/communications/
mailling_list_form.html](http://www.ag.ncat.edu/communications/mailling_list_form.html)

7,000 copies of this public document
were printed on recycled paper at
a cost of \$1,105.72 or \$0.16 per copy.



Distributed in furtherance of the acts of Congress of May 8
and June 30, 1914. Employment and program opportunities
are open to all people regardless of race, color, national
origin, sex, age or disability. North Carolina A&T State
University, North Carolina State University, US Department
of Agriculture and local governments cooperating.

Nonprofit Org.

US Postage Paid

Permit No. 202

Greensboro, NC

on the *move*/flip side



Mark your calendar

- Institute for Future Agricultural Leaders (IFAL): *June 13 – 18*
- Food and Agribusiness Industries Summer Program (FAISP) for 11th and 12th grade students: *July 18 – 23*
- Research Apprentice Program (RAP) for high school students: *June 20 – July 16*
- Small Farms Field Day at the University Farm: *July 20*

There were a number of special event s in the week leading up to the installation of Dr. Harold Martin as the 12th chancellor of A&T. In the photo above, Martin was reading to a group of students from Greensboro's Washington Elementary School for a videotape that was sent to students in Malawi who were provided books so they too could read along.

www.ag.ncat.edu